

SEQUENCE LISTING

<110> SHELLEY, CARL SIMON
FAROKHZAD, OMID C.

<120> METHODS FOR DIAGNOSING AND TREATING TUMORS AND SUPPRESSING CD
PROMOTERS

<130> M0765.70064US01

<140> 10/528948
<141> 2005-03-23

<150> US 60/412,964
<151> 2002-09-23

<150> PCT/US03/30213
<151> 2003-09-23

<160> 28

<170> PatentIn version 3.2

<210> 1
<211> 1879
<212> DNA
<213> Homo sapiens sialophorin

<400> 1

gcctcgggag gtggtggagt gacctggccc cagtgtctgcg tccttatcag ccgagccggt	60
cccagctctt gctcctgcct gtttgccctg aaatggccac gcttctcctt ctccttgggg	120
tgctggtggt aagcccagac gctctgggga gcacaacagc agtgcagaca ccacactccg	180
gagagccttt ggtctctact agcgagcccc tgagctcaaa gatgtacacc acttcaataa	240
caagtgaccc taaggccgac agcactgggg accagacctc agccctacct ccctcaactt	300
ccatcaatga gggatcccct ctttggaactt ccattgggtgc cagcactggt tcccctttac	360
ctgagccaac aacctaccag gaagtttcca tcaagatgtc atcagtgcc caggaaaccc	420
ctcatgcaac cagtcatcct gctgttccca taacagcaaa ctctctagga tcccacaccg	480
tgacagggtg aaccataaca acgaactctc cagaaacctc cagtaggacc agtggagccc	540
ctgttaccac ggcagctagc tctctggaga cctccagagg cacctctgga ccccctctta	600
ccatggcaac tgtctctctg gagacttcca aaggcacctc tggaccccct gttaccatgg	660
caactgactc tctggagacc tccactggga ccactggacc ccctgttacc atgacaactg	720
gctctctgga gccctccagc ggggccagtg gaccccaggt ctctagcgta aaactatcta	780
caatgatgtc tocaacgacc tccaccaacg caagcactgt gcccttcggg aaccagatg	840
agaactcacg aggcattgtg ccagtggctg tgcttggtgc cctgctggcg gtcatagtcc	900
tcgtggctct gctcctgctg tggcgccggc ggcagaagcg ggggactggg gccctcgtgc	960

```

tgagcagagg tggcaagcgt aacgggggtgg tggacgcctg ggctgggcca gcccagggtcc 1020
ctgaggaggg ggccgtgaca gtgaccgtgg gaggggtccgg gggcgacaag ggctctgggt 1080
tccccgatgg ggaggggtct agccgtcggc ccacgctcac cactttcttt ggcagacgga 1140
agtctcgcca gggctccctg gcgatggagg agctgaagtc tgggtcaggc cccagcctca 1200
aaggggagga ggagccactg gtggccagtg aggatggggc tgtggacgcc ccagctcctg 1260
atgagcccga agggggagac ggggctgccc cttaagtgtc ggtgaatagt gaggctggag 1320
gccggaatct cagccagcct ccagcacctt ccctctcacc atcccactgc cccctcgtc 1380
ccatgtttcc acccggcacc ctgatcctca cccgaatctc cttttttttt ttcttttgag 1440
acagagtttc gctttgtcgc ccaggctgga gtgcaatgca cgatctcagt tcaactgcaac 1500
ctctgcctcc taagttcagg cgattctcct gcctcagctt cccgagtaac tgagattaca 1560
ggcaccacc accatgccca gctgcttttt tgtatttttg gtagagatgg ggtttcacca 1620
tgttggttag gctggtctca aactcctgac ctcaggatgat ctacctgcct cagcctccca 1680
aagtgtctgag attacagaca tgagcctccg cgccttgccct cctcaccac ctcttcactc 1740
tgaatcctca tgaggcttct cagccctgga tttcctgctg ccacccctcac ccagcaccca 1800
caactagcgc ctgggcaggg cagggtcggc acctctcaac gtctgtggac tgaatgaata 1860
aaccctcctc atccacccc 1879

```

```

<210> 2
<211> 400
<212> PRT
<213> Homo sapiens sialophorin

```

```

<400> 2
Met Ala Thr Leu Leu Leu Leu Gly Val Leu Val Val Ser Pro Asp
1 5 10 15
Ala Leu Gly Ser Thr Thr Ala Val Gln Thr Pro Thr Ser Gly Glu Pro
20 25 30
Leu Val Ser Thr Ser Glu Pro Leu Ser Ser Lys Met Tyr Thr Thr Ser
35 40 45
Ile Thr Ser Asp Pro Lys Ala Asp Ser Thr Gly Asp Gln Thr Ser Ala
50 55 60
Leu Pro Pro Ser Thr Ser Ile Asn Glu Gly Ser Pro Leu Trp Thr Ser
65 70 75 80
Ile Gly Ala Ser Thr Gly Ser Pro Leu Pro Glu Pro Thr Thr Tyr Gln
85 90 95
Glu Val Ser Ile Lys Met Ser Ser Val Pro Gln Glu Thr Pro His Ala
100 105 110

```

```
<210> 3
<211> 1893
<212> DNA
<213> Homo sapiens
```

<400> 3
cttccctgcc tccctcaggt cccagctctt gtcctgcct gtttgctgg aaatggccac 60
gcttctcctt ctcttgggg tgctgggtggt aagcccagac gctctgggga gcacaacagc 120
agtgcagaca cccacctccg gagagccttt ggtctctact agcgagcccc tgagctcaaa 180
gatgtacacc acttcaataa caagtgacct taaggccgac agcactgggg accagacctc 240
agccctacct cctcaactt ccatcaatga gggatccct ctttggactt ccattgggtgc 300
cagcactggt tcccctttac ctgagccaac aacctaccag gaagtttcca tcaagatgtc 360
atcagtgcc caggaaacct ctcatgcaac cagtcatcct gctgttccca taacagcaaa 420
ctctctagga tcccacaccg tgacaggtgg aaccataaca acgaactctc cagaaacctc 480
cagtaggacc agtggagccc ctgttaccac ggcagctagc tctctggaga cctccagagg 540
cacctctgga cccctcttta ccatggcaac tgtctctctg gagacttcca aaggcacctc 600
tggacccct gttaccatgg caactgactc tctggagacc tccactggga cactggacc 660
ccctgttacc atgacaactg gctctctgga gccctccagc ggggccagtg gaccccaggt 720
ctctagcgta aaactatcta caatgatgtc tccaacgacc tccaccaacg caagcactgt 780
gcccttccgg aaccagatg agaactcacg aggcagtctg ccagtggctg tgcttgtggc 840
cctgctggcg gtcatagtc tctggctct gtcctgctg tggcgccggc ggcagaagcg 900
gctgactggg gccctcgtgc tgagcagagg cggcaagcgt aacggggtgg tggacgcctg 960
ggctgggcca gccaggtcc ctgaggagg ggccgtgaca gtgaccgtgg gaggggtccg 1020
gggcgacaag ggtcttgggt tccccgatgg ggaggggtct agccgtcggc ccacgctcac 1080
cactttcttt ggcagacgga agtctcgcca gggctccctg gcgatggagg agctgaagtc 1140
tgggtcaggc ccagacctca aaggggagga ggagccactg gtggccagtg aggatggggc 1200
tgtggacgcc ccagctcctg atgagcccga agggggagac ggggctgccc cttaagtgtc 1260
ggtgaatagt gaggtggag gccggaatct cagccagcct ccagcacctt ccctctcacc 1320
atcccactgc cccctcgtc ccatgtttcc acccggcacc ctgatcctca ccgaatctc 1380
cttttttttt ttcttttgag acagagtttc gctttgtgc ccaggctgga gtgcaatgca 1440
cgatctcagt tcaactgcaac ctctgcctcc taagttcagg cgattctcct gcctcagctt 1500
cccagtaac tgagattaca ggcaccacc accatgcca gctgcttttt tgtatttttg 1560
gtagagatgg ggtttcacca tgttggttag gctggtctca aactcctgac ctcaggtgat 1620
ctacctgcct cagcctccca aagtgtgag attacagaca tgagcctccg cgccttgctt 1680
cctcaccac ctcttcactc tgaatcctca tgaggcttct cagccctgga tttcctgctg 1740
ccatcctcac ccagcaccca caactagcgc ctgggcaggg cagggtggc acctctcaac 1800

gtctgtggac tgaatgaata aaccctcctc atccaccctt aaaaaaaaaa aaaaaaaaaa 1860
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1893

<210> 4
 <211> 400
 <212> PRT
 <213> Homo sapiens

<400> 4
 Met Ala Thr Leu Leu Leu Leu Gly Val Leu Val Val Ser Pro Asp
 1 5 10 15
 Ala Leu Gly Ser Thr Thr Ala Val Gln Thr Pro Thr Ser Gly Glu Pro
 20 25 30
 Leu Val Ser Thr Ser Glu Pro Leu Ser Ser Lys Met Tyr Thr Thr Ser
 35 40 45
 Ile Thr Ser Asp Pro Lys Ala Asp Ser Thr Gly Asp Gln Thr Ser Ala
 50 55 60
 Leu Pro Pro Ser Thr Ser Ile Asn Glu Gly Ser Pro Leu Trp Thr Ser
 65 70 75 80
 Ile Gly Ala Ser Thr Gly Ser Pro Leu Pro Glu Pro Thr Thr Tyr Gln
 85 90 95
 Glu Val Ser Ile Lys Met Ser Ser Val Pro Gln Glu Thr Pro His Ala
 100 105 110
 Thr Ser His Pro Ala Val Pro Ile Thr Ala Asn Ser Leu Gly Ser His
 115 120 125
 Thr Val Thr Gly Gly Thr Ile Thr Thr Asn Ser Pro Glu Thr Ser Ser
 130 135 140
 Arg Thr Ser Gly Ala Pro Val Thr Thr Ala Ala Ser Ser Leu Glu Thr
 145 150 155 160
 Ser Arg Gly Thr Ser Gly Pro Pro Leu Thr Met Ala Thr Val Ser Leu
 165 170 175
 Glu Thr Ser Lys Gly Thr Ser Gly Pro Pro Val Thr Met Ala Thr Asp
 180 185 190
 Ser Leu Glu Thr Ser Thr Gly Thr Thr Gly Pro Pro Val Thr Met Thr
 195 200 205
 Thr Gly Ser Leu Glu Pro Ser Ser Gly Ala Ser Gly Pro Gln Val Ser
 210 215 220
 Ser Val Lys Leu Ser Thr Met Met Ser Pro Thr Thr Ser Thr Asn Ala
 225 230 235 240
 Ser Thr Val Pro Phe Arg Asn Pro Asp Glu Asn Ser Arg Gly Met Leu
 245 250 255
 Pro Val Ala Val Leu Val Ala Leu Leu Ala Val Ile Val Leu Val Ala
 260 265 270

Leu Leu Leu Leu Trp Arg Arg Arg Gln Lys Arg Arg Thr Gly Ala Leu
275 280 285

Val Leu Ser Arg Gly Gly Lys Arg Asn Gly Val Val Asp Ala Trp Ala
290 295 300

Gly Pro Ala Gln Val Pro Glu Glu Gly Ala Val Thr Val Thr Val Gly
305 310 315 320

Gly Ser Gly Gly Asp Lys Gly Ser Gly Phe Pro Asp Gly Glu Gly Ser
325 330 335

Ser Arg Arg Pro Thr Leu Thr Thr Phe Phe Gly Arg Arg Lys Ser Arg
340 345 350

Gln Gly Ser Leu Ala Met Glu Glu Leu Lys Ser Gly Ser Gly Pro Ser
355 360 365

Leu Lys Gly Glu Glu Glu Pro Leu Val Ala Ser Glu Asp Gly Ala Val
370 375 380

Asp Ala Pro Ala Pro Asp Glu Pro Glu Gly Gly Asp Gly Ala Ala Pro
385 390 395 400

<210> 5
<211> 1924
<212> DNA
<213> Human leukosialin

<400> 5
cctctgagcc cagccctccc tagcatcacc acttccatcc cattcctcag ccaagagcca 60
ggaatcctga ttccagatcc cacgcttccc tgctccctc aggtcccagc tcttgctcct 120
gcctgtttgc ctggaaatgg ccacgcttct ccttctcctt ggggtgctgg tggtaagccc 180
agacgctctg gggagcacia cagcagtgcga gacacccacc tccggagagc ctttggtctc 240
tactagcgag cccctgagct caaagatgta caccacttca ataacaagt accctaaggc 300
cgacagcact ggggaccaga cctcagccct acctccctca acttccatca atgagggatc 360
ccctctttgg acttccattg gtgccagcac tggttcccct ttacctgagc caacaacct 420
ccaggaagtt tccatcaaga tgtcatcagt gcccaggaa acccctcatg caaccagtca 480
tcctgctgtt ccataacag caaactctct aggatccac accgtgacag gtggaacct 540
aacaacgaac tctccagaaa cctccagtag gaccagtgga gcccctgtta ccacggcagc 600
tagctctctg gagacctcca gaggcacctc tggacccctt cttaccatgg caactgtctc 660
tctggagact tccaaaggca cctctggacc ccctgttacc atggcaactg actctctgga 720
gacctccact gggaccactg gacccctgt taccatgaca actggtctctc tggagccctc 780
cagcggggcc agtggacccc aggtctctag cgtaaaacta tctacaatga tgtctccaac 840
gacctccacc aacgcaagca ctgtgccctt ccggaaccca gatgagaact cacgaggcat 900

```

gctgccagtg gctgtgcttg tggccctgct ggcggtcata gtccctgtgg ctctgctcct 960
gctgtggcgc cggcggcaga agcggcggaac tggggccctc gtgctgagca gaggcggcaa 1020
gcgtaacggg gtggtggacg cctgggcttg gccagcccag gtccctgagg agggggccgt 1080
gacagtgacc gtgggagggg cggggggcga caagggtctt gggttccccg atggggaggg 1140
gtctagccgt cggcccacgc tcaccacttt ctttggcaga cggaagtctc gccagggtc 1200
cctggcgatg gaggagctga agtctgggtc agggcccagc ctcaaagggg aggaggagcc 1260
actggtggcc agtgaggatg gggctgtgga cgcccagct cctgatgagc ccgaaggggg 1320
agacggggct gcccttaag tgtcggtgaa tagtgaggct ggaggccgca atctcagcca 1380
gcctccagca ccttccctct caccatccca ctgcccctc gtcccatgt ttccaccgg 1440
caccctgatc ctacccgaa tctccttttt tttttcttt tgagacagag tttcgctttg 1500
tcgcccaggc tggagtgcaa tgcacgatct cagttcactg caacctctgc ctctaagtt 1560
caggcgattc tcctgcctca gcttcccag taactgagat tacaggcacc caccacatg 1620
cccagctgct tttttgtatt tttggtagag atggggtttc accatgttgg ctaggctggt 1680
ctcaaactcc tgacctcagg tgatctacct gcctcagcct cccaaagtgc tgagattaca 1740
gacatgagcc tccgcgcctt gcctcctcac ccacctcttc actctgaatc ctcatgaggc 1800
ttctcagccc tggatttcct gctgccatcc tcaccagca ccacaaacta gcgcctgggc 1860
agggcagggc tggcacctct caacgtctgt ggactgaatg aataaacct cctcatccac 1920
ccct 1924

```

```

<210> 6
<211> 400
<212> PRT
<213> Homo sapiens leukosialin

```

```

<400> 6
Met Ala Thr Leu Leu Leu Leu Leu Gly Val Leu Val Val Ser Pro Asp
1 5 10 15
Ala Leu Gly Ser Thr Thr Ala Val Gln Thr Pro Thr Ser Gly Glu Pro
20 25 30
Leu Val Ser Thr Ser Glu Pro Leu Ser Ser Lys Met Tyr Thr Thr Ser
35 40 45
Ile Thr Ser Asp Pro Lys Ala Asp Ser Thr Gly Asp Gln Thr Ser Ala
50 55 60
Leu Pro Pro Ser Thr Ser Ile Asn Glu Gly Ser Pro Leu Trp Thr Ser
65 70 75 80
Ile Gly Ala Ser Thr Gly Ser Pro Leu Pro Glu Pro Thr Thr Tyr Gln
85 90 95

```

Glu	Val	Ser	Ile	Lys	Met	Ser	Ser	Val	Pro	Gln	Glu	Thr	Pro	His	Ala	
			100					105					110			
Thr	Ser	His	Pro	Ala	Val	Pro	Ile	Thr	Ala	Asn	Ser	Leu	Gly	Ser	His	
		115					120					125				
Thr	Val	Thr	Gly	Gly	Thr	Ile	Thr	Thr	Asn	Ser	Pro	Glu	Thr	Ser	Ser	
	130					135					140					
Arg	Thr	Ser	Gly	Ala	Pro	Val	Thr	Thr	Ala	Ala	Ser	Ser	Leu	Glu	Thr	
145					150					155						160
Ser	Arg	Gly	Thr	Ser	Gly	Pro	Pro	Leu	Thr	Met	Ala	Thr	Val	Ser	Leu	
				165					170					175		
Glu	Thr	Ser	Lys	Gly	Thr	Ser	Gly	Pro	Pro	Val	Thr	Met	Ala	Thr	Asp	
			180					185					190			
Ser	Leu	Glu	Thr	Ser	Thr	Gly	Thr	Thr	Gly	Pro	Pro	Val	Thr	Met	Thr	
	195						200					205				
Thr	Gly	Ser	Leu	Glu	Pro	Ser	Ser	Gly	Ala	Ser	Gly	Pro	Gln	Val	Ser	
	210					215					220					
Ser	Val	Lys	Leu	Ser	Thr	Met	Met	Ser	Pro	Thr	Thr	Ser	Thr	Asn	Ala	
225					230					235					240	
Ser	Thr	Val	Pro	Phe	Arg	Asn	Pro	Asp	Glu	Asn	Ser	Arg	Gly	Met	Leu	
				245					250					255		
Pro	Val	Ala	Val	Leu	Val	Ala	Leu	Leu	Ala	Val	Ile	Val	Leu	Val	Ala	
			260					265					270			
Leu	Leu	Leu	Leu	Trp	Arg	Arg	Arg	Gln	Lys	Arg	Arg	Thr	Gly	Ala	Leu	
	275						280					285				
Val	Leu	Ser	Arg	Gly	Gly	Lys	Arg	Asn	Gly	Val	Val	Asp	Ala	Trp	Ala	
	290					295					300					
Gly	Pro	Ala	Gln	Val	Pro	Glu	Glu	Gly	Ala	Val	Thr	Val	Thr	Val	Gly	
305					310					315					320	
Gly	Ser	Gly	Gly	Asp	Lys	Gly	Ser	Gly	Phe	Pro	Asp	Gly	Glu	Gly	Ser	
				325					330					335		
Ser	Arg	Arg	Pro	Thr	Leu	Thr	Thr	Phe	Phe	Gly	Arg	Arg	Lys	Ser	Arg	
			340					345					350			
Gln	Gly	Ser	Leu	Ala	Met	Glu	Glu	Leu	Lys	Ser	Gly	Ser	Gly	Pro	Ser	
		355					360					365				
Leu	Lys	Gly	Glu	Glu	Glu	Pro	Leu	Val	Ala	Ser	Glu	Asp	Gly	Ala	Val	
	370					375					380					
Asp	Ala	Pro	Ala	Pro	Asp	Glu	Pro	Glu	Gly	Gly	Asp	Gly	Ala	Ala	Pro	
385					390					395					400	

<210> 7
 <211> 2288
 <212> DNA

<213> Homo spaiens leukosialin

<400> 7

ggagcctcgg gaggtggtgg agtgacctgg cccagtgct gcgtccttat cagccgagcc	60
ggccccagct cttgctcctg cctgtttgcc tggaaatggc cagccttctc cttctccttg	120
gggtgctggt ggtaagccca gacgctctgg ggagcacaac agcagtgcag acaccacct	180
ccggagagcc tttggtctct actagcgagc cctgagctc aaagatgtac accacttcaa	240
taacaagtga ccctaaggcc gacagcactg gggaccagac ctccagcccta cctccctcaa	300
cttccatcaa tgagggatcc cctctttgga cttccattgg tgccagcact ggttcccctt	360
tacctgagcc aacaacctac caggaagttt ccatcaagat gtcacagtg ccccaggaaa	420
cccctcatgc aaccagtcac cctgctgttc ccataacagc aaactctcta ggatcccaca	480
ccgtgacagg tggaaccata acaacgaact ctccagaaac ctccagtagg accagtggag	540
ccctgtttac cagggcagct agctctctgg agacctccag aggcacctct ggacccccctc	600
ttaccatggc aactgtctct ctggagactt ccaaaggcac ctctggaccc cctgttacca	660
tggcaactga ctctctggag acctccactg ggaccactgg accccctgtt accatgacaa	720
ctggctctct ggagccctcc agcggggcca gtggacccca ggtctctagc gtaaaactat	780
ctacaatgat gtctccaacg acctccacca acgcaagcac tgtgcccttc cggaaccag	840
atgagaactc acgaggcatg ctgccagtgg ctgtgcttgt ggccctgctg gcggtcatag	900
tcctcgtggc tctgctcctg ctgtggcgcc ggcggcagaa gcggcggact ggggccctcg	960
tgctgagcag aggcggcaag cgtaacgggg tggaggacgc ctgggctggg ccagcccagg	1020
tcctgagga gggggccgtg acagtgaccg tgggagggtc cggggggcgac aagggtctg	1080
ggttccccga tggggagggg tctagccgtc ggccacgct caccactttc tttggcagac	1140
ggaagtctcg ccagggctcc ctggcgatgg aggagctgaa gtctgggtca ggccccagcc	1200
tcaaagggga ggaggagcca ctggtggcca gtgaggatgg ggetgtggac gccccagctc	1260
ctgatgagcc cgaaggggga gacggggctg ccccttaagt gtcggtgaat agtgaggctg	1320
gaggccggaa tctcagccag cctccagcac cttccctctc accatcccac tgccccctcg	1380
ctcccatggt tccacccggc accctgatcc tcacccgaat ctcccttttt tttttctttt	1440
gagacagagt ttcgctttgt cgcccaggct ggagtgcaat gcacgatctc agttcactgc	1500
aacctctgcc tctaagttc aggcgattct cctgcctcag cttcccgagt aactgagatt	1560
acaggcaccc accacatgc ccagctgctt ttttgatatt ttggtagaga tggggtttca	1620
ccatgttggc taggctggtc tcaaactcct gacctcaggt gatctacctg cctcagcctc	1680
ccaaagtgct gagattacag acatgagcct ccgcgccttg cctcctcacc cacctcttca	1740

ctctgaatcc tcattgaggct tctcagccct ggatttcctg ctgccatcct caccagcac 1800
ccacaactag cgctgggca gggcagggt ggcacctctc aacgtctgtg gactgaatga 1860
ataaacctc ctcttataaaa tgccaaaatt cattcagctt tgatgataaa cactgaggcc 1920
caatggcctt tatcatctag ggagtatgaa gaatgagcaa gaggctaact cagcgtgagt 1980
taccctggga aaggaaagaa gaaatggttc atataggaca cacatagata ccttcaaggg 2040
tgtttgtaga gttgtttctt aagtagttgg tttccttcac agaaagttct taaactcaga 2100
atatacccat ccatgcaccc caccagcaat acaaagaccc caaacaataaa attactatat 2160
tcttacccta cgcattggctt cctcctcttc ttgacgcttt tcataatgtg caaagtcac 2220
aaagattgag gtggtatgct tgaaagtagc aattatttta agcacttgct tagctttttc 2280
aagggacg 2288

<210> 8
<211> 400
<212> PRT
<213> Homo sapiens leukosialin

<400> 8
Met Ala Thr Leu Leu Leu Leu Gly Val Leu Val Val Ser Pro Asp
1 5 10 15
Ala Leu Gly Ser Thr Thr Ala Val Gln Thr Pro Thr Ser Gly Glu Pro
20 25 30
Leu Val Ser Thr Ser Glu Pro Leu Ser Ser Lys Met Tyr Thr Thr Ser
35 40 45
Ile Thr Ser Asp Pro Lys Ala Asp Ser Thr Gly Asp Gln Thr Ser Ala
50 55 60
Leu Pro Pro Ser Thr Ser Ile Asn Glu Gly Ser Pro Leu Trp Thr Ser
65 70 75 80
Ile Gly Ala Ser Thr Gly Ser Pro Leu Pro Glu Pro Thr Thr Tyr Gln
85 90 95
Glu Val Ser Ile Lys Met Ser Ser Val Pro Gln Glu Thr Pro His Ala
100 105 110
Thr Ser His Pro Ala Val Pro Ile Thr Ala Asn Ser Leu Gly Ser His
115 120 125
Thr Val Thr Gly Gly Thr Ile Thr Thr Asn Ser Pro Glu Thr Ser Ser
130 135 140
Arg Thr Ser Gly Ala Pro Val Thr Thr Ala Ala Ser Ser Leu Glu Thr
145 150 155 160
Ser Arg Gly Thr Ser Gly Pro Pro Leu Thr Met Ala Thr Val Ser Leu
165 170 175

Glu	Thr	Ser	Lys	Gly	Thr	Ser	Gly	Pro	Pro	Val	Thr	Met	Ala	Thr	Asp	
			180					185					190			
Ser	Leu	Glu	Thr	Ser	Thr	Gly	Thr	Thr	Gly	Pro	Pro	Val	Thr	Met	Thr	
		195					200					205				
Thr	Gly	Ser	Leu	Glu	Pro	Ser	Ser	Gly	Ala	Ser	Gly	Pro	Gln	Val	Ser	
	210					215					220					
Ser	Val	Lys	Leu	Ser	Thr	Met	Met	Ser	Pro	Thr	Thr	Ser	Thr	Asn	Ala	
225					230					235					240	
Ser	Thr	Val	Pro	Phe	Arg	Asn	Pro	Asp	Glu	Asn	Ser	Arg	Gly	Met	Leu	
				245					250					255		
Pro	Val	Ala	Val	Leu	Val	Ala	Leu	Leu	Ala	Val	Ile	Val	Leu	Val	Ala	
			260					265					270			
Leu	Leu	Leu	Leu	Trp	Arg	Arg	Arg	Gln	Lys	Arg	Arg	Thr	Gly	Ala	Leu	
		275					280					285				
Val	Leu	Ser	Arg	Gly	Gly	Lys	Arg	Asn	Gly	Val	Val	Asp	Ala	Trp	Ala	
	290					295					300					
Gly	Pro	Ala	Gln	Val	Pro	Glu	Glu	Gly	Ala	Val	Thr	Val	Thr	Val	Gly	
305					310					315					320	
Gly	Ser	Gly	Gly	Asp	Lys	Gly	Ser	Gly	Phe	Pro	Asp	Gly	Glu	Gly	Ser	
				325					330					335		
Ser	Arg	Arg	Pro	Thr	Leu	Thr	Thr	Phe	Phe	Gly	Arg	Arg	Lys	Ser	Arg	
			340					345					350			
Gln	Gly	Ser	Leu	Ala	Met	Glu	Glu	Leu	Lys	Ser	Gly	Ser	Gly	Pro	Ser	
		355					360					365				
Leu	Lys	Gly	Glu	Glu	Glu	Pro	Leu	Val	Ala	Ser	Glu	Asp	Gly	Ala	Val	
	370					375					380					
Asp	Ala	Pro	Ala	Pro	Asp	Glu	Pro	Glu	Gly	Gly	Asp	Gly	Ala	Ala	Pro	
385					390					395					400	

<210> 9
 <211> 5050
 <212> DNA
 <213> Homo sapiens leukosialin (CD43)

<400> 9	
ccccctgca gaatgggcac cccgttacct ttctgagcca ctgtgcgagc aaaagagagc	60
atgttggccca ggctgggtctc gaactcctga cctcaagtga tcagcctgcc ttacctcca	120
aagtctctggg attacaggcg tgaaccacca cgctcagcct ctgaatactt tgtactcaag	180
ccatttttca gtgctgtgtt tgcagtgagc acaccgagg gatgaagaca cgtctccctg	240
tgggaacctg ggcttaccag ggcccctaga ggaggggaat ctctcaagct cagagctcta	300
tggctgcggt gcaggccac tgtgtgcatg gtgtcagtct gggcccttcc atgttgcccc	360

cgtgggactt	ggggttaaggg	gaactgatgc	aaacatcacg	ctgctgttgc	ttggtgtgag	420
caattaattc	ctgtggctct	cacccaggag	tctcatgtct	ttgggtcaga	caaactcatc	480
agcttgtaga	aatggcacag	tcccacgggc	ctgttagaat	cttctattgt	gcacatgttg	540
ctcttaaaat	atacaaatca	gttttgattt	taaaaaatta	tttatttttt	tagtgatagg	600
agttttgcta	cgttgcccag	gctggtttca	aactcttggg	ctcaggaggt	cctcccactt	660
tggcctggac	tgccagcata	atgtatcacc	acaccggga	ctgattttcg	tttttcaaga	720
acaaaaacca	aaaacataca	caaaccgaga	gtcaaagctt	gctaattaga	ggaaagtcag	780
gaaatgggaa	ccattcaaag	aagaaaatac	ccccacctcc	tactctcacc	tatccaaaga	840
caattaggtg	aatccottag	tagatatctt	tccagacggt	tttccatata	gattcccata	900
tctggccagg	cgcggtggct	cacacctgta	atcctagcgc	ttggggaggc	tgaggcggat	960
ggaccacctg	aggtcaggag	ttcgagacca	gcctgaccaa	catggagaaa	cctcgtctct	1020
acgaaaaata	caaaattagc	cgggcacagt	ggtgcaagcc	tgtaatccca	gctactcagg	1080
aggccgaggc	aggagaattg	cttgaaccta	ggaggcagac	attgtgctga	gccgagccaa	1140
gatcatgcc	ttgactaaa	ctccgcctta	aaaaaaaaaa	aaaagattcc	cacatcttta	1200
ctagtttgca	gaaataagat	cctagcatat	gcagtgtgta	ggaaccacct	tggtttagcc	1260
acgtctctgt	gactgggggc	cactgtggtg	accccagct	ccccggacag	agtcaagagc	1320
tcaccagcct	gcaaaggttt	tcacggcccc	cagccagact	cgggggcttc	ctcttgccct	1380
gctacttcct	gggagctctg	agggcaggaa	atggcgccac	tcagctcctg	gcctaacagc	1440
ttggggacca	caaatgcaaa	ggaaaccacc	ctcccctccc	acctoctoct	ctgcaccctt	1500
gagttctcag	gtcacattc	ccaccacca	cctctgagcc	cagccctccc	tagcatcacc	1560
acttccatcc	cattcctcag	ccaagagcca	ggaatcctga	ttccagatcc	cacgcttccc	1620
tgctccctc	aggtgagccc	cagaccccca	ggcaccgcc	tgggccctga	aggagcaggt	1680
gatggtgctg	tcttcgccc	gcagctgtgg	gagcaggcgg	gtggggcagg	atggaggggt	1740
gggtggggtg	ggtggagcca	gggccactt	cctttccct	tggggccctg	tccttcccag	1800
tcttgcccca	gcctcgggag	gtggtggagt	gacctggccc	cagtgtgcg	tccttatcag	1860
ccgagccggt	aagaggggtga	gacttgggtg	ggtaggggcc	tcagtgggcc	tgggaatgtg	1920
cctgtggctt	gaaaagactc	tgacaggtta	tgatgggaag	agattgggag	ccattgggct	1980
gcacagggtc	agggaaggcc	aggaggggct	ggtcactgct	ggaatctaag	ctgctgaggc	2040
tggagggagc	ctcaggatgg	ggctgatggg	ggagctgcc	gcactgttcc	ctctgtcatt	2100
tctgataaca	gtaaaagcca	gcatggaaaa	aaccgttaaa	ccgcagggtg	ggcctggccg	2160
ttggcaggga	agtgggcaga	ggggaggccc	ggccaggctc	tccggcaact	cccgcgtgtt	2220

ctgcttctcc	ggctgcccac	ctgcaggtcc	cagctcttgc	tcctgcctgt	ttgcctggaa	2280
atggccacgc	ttctccttct	ccttgggggtg	ctggtggtaa	gccagacgc	tctggggagc	2340
acaacagcag	tgcagacacc	cacctccgga	gagccttttg	tctctactag	cgagcccctg	2400
agctcaaaga	tgtacaccac	ttcaataaca	agtgacccta	aggccgacag	cactggggac	2460
cagacctcag	ccctacctcc	ctcaacttcc	atcaatgagg	gatccccctc	ttggacttcc	2520
attggtgcc	gcactggttc	ccctttacct	gagccaacaa	cctaccagga	agtttccatc	2580
aagatgtcat	cagtgcccc	ggaaaccct	catgcaacca	gtcatcctgc	tgttcccata	2640
acagcaaact	ctctaggatc	ccacaccgtg	acaggtggaa	ccataacaac	gaactctcca	2700
gaaacctcca	gtaggaccag	tggagcccct	gttaccacgg	cagctagctc	tctggagacc	2760
tccagaggca	cctctggacc	ccctcttacc	atggcaactg	tctctctgga	gacttccaaa	2820
ggcacctctg	gaccccctgt	taccatggca	actgactctc	tggagacctc	cactgggacc	2880
actggacccc	ctgttaccat	gacaactggc	tctctggagc	cctccagcgg	ggccagtgg	2940
cccaggtct	ctagcgtaaa	actatctaca	atgatgtctc	caacgacctc	caccaacgca	3000
agcactgtgc	ccttcggaa	cccagatgag	aactcacgag	gcatgctgcc	agtggctgtg	3060
cttgtggccc	tgttggcggt	catagtcttc	gtggctctgc	tcctgctgtg	gcgccggcgg	3120
cagaagcggc	ggactggggc	cctcgtgctg	agcagaggcg	gcaagcgtaa	cgggggtggtg	3180
gagcgctggg	ctggggccagc	ccaggtccct	gaggaggggg	ccgtgacagt	gaccgtggga	3240
gggtccgggg	gcgacaaggg	ctctgggttc	ccgatgggg	aggggtctag	ccgtcggccc	3300
acgctcacca	ctttcttttg	cagacggaag	tctcgccagg	gctccctggc	gatggaggag	3360
ctgaagtctg	ggtcaggccc	cagcctcaaa	ggggaggagg	agccactggt	ggccagtgag	3420
gatggggctg	tggacgcccc	agctcctgat	gagcccgaag	ggggagacgg	ggctgcccct	3480
taagtgtcgg	tgaatagtga	ggctggaggc	cgcaatctca	gccagcctcc	agcaccttcc	3540
ctctcaccat	cccactgccc	cctcgtctcc	atgtttccac	ccggcaccct	gacctcacc	3600
cgaatctcct	tttttttttt	cttttgagac	agagtttcgc	tttgtgccc	aggctggagt	3660
gcaatgcacg	atctcagttc	actgcaacct	ctgcctccta	agttcaggcg	attctcctgc	3720
ctcagcttcc	cgagtaactg	agattacagg	caccaccac	catgcccagc	tgcttttttg	3780
tatttttggg	agagatgggg	tttcaccatg	ttggctaggc	tgggtotcaa	ctcctgacct	3840
caggtgatct	acctgcctca	gcctcccaaa	gtgctgagat	tacagacatg	agcctccgcg	3900
ccttgccctc	tcaccacct	cttcactctg	aatcctcatg	aggcttctca	gccctggatt	3960
tcctgctgcc	atcctcacc	agcaccaca	actagcgct	gggcagggca	gggctggcac	4020
ctctcaacgt	ctgtggactg	aatgaataaa	ccctcctcat	ccaccctat	ttatctccat	4080

caccattttcc ccctctttct tgttcctgga aacggctgct gagtctccat cggccaaact 4140
tatctgccct gtgatttctt tgacaattct ccttttcccc cagaaccac cctgggttga 4200
ccagagtctg ggaagaagga caagagaacc cggcaaactc cctcctagga ttaactttgt 4260
aaagcaccct tgccctgtag ctgcaagggc tgtggaacct gggcagcccg caaccacctt 4320
tagctctggg cccccaggc cagcctggag catggctggg tggggccacc agcccatgct 4380
ctcaggcggg cctgtgatct ttcccagggc acatggactg taggctggcc ctggcccaca 4440
ccaccacact ctccccagcc atggacagag gcagccagag gcctcacggt ttctcctccg 4500
agtttctggc tgggtgtagt tctcagaaac ccagtgccct gcgtgtgtcc actcgtgggt 4560
gtggtttgtg tgcaagagct gaggatttgg cgatgcttgg gaggggtagt tgtgggtaca 4620
gacggtgtgg ggggtgggaag tgggtgcagag actgaagagg gtcaacctgg gcatggggga 4680
cacagggact gctgagaacg tgcgtgtcat ctttgctctg atgggggtgga catagcagaa 4740
aatctaactc tgtctgtagc cccatacaga atgccagggt gagcacagtg gctgggtgcct 4800
ttaatcccag cactttggaa agttgaggca ggaggatcgc ttgagcccag gagttcagat 4860
ctgaagtgag ctgtgattgc accactgcac ttcagcctgg gcaacagagt gagcccctgt 4920
ctcaaaaaag aaaagaaaaa gaaagccagg cttcatggaa agatcgtatg tgtgacccaa 4980
tatgagttct tcagctcagc catggtaatc ccttccttga agtctccatt tctgcagtac 5040
acatgcatgt 5050

<210> 10
<211> 400
<212> PRT
<213> Homo sapiens leukosialin (CD43)

<400> 10
Met Ala Thr Leu Leu Leu Leu Gly Val Leu Val Val Ser Pro Asp
1 5 10 15
Ala Leu Gly Ser Thr Thr Ala Val Gln Thr Pro Thr Ser Gly Glu Pro
20 25 30
Leu Val Ser Thr Ser Glu Pro Leu Ser Ser Lys Met Tyr Thr Thr Ser
35 40 45
Ile Thr Ser Asp Pro Lys Ala Asp Ser Thr Gly Asp Gln Thr Ser Ala
50 55 60
Leu Pro Pro Ser Thr Ser Ile Asn Glu Gly Ser Pro Leu Trp Thr Ser
65 70 75 80
Ile Gly Ala Ser Thr Gly Ser Pro Leu Pro Glu Pro Thr Thr Tyr Gln
85 90 95
Glu Val Ser Ile Lys Met Ser Ser Val Pro Gln Glu Thr Pro His Ala
100 105 110

Thr	Ser	His	Pro	Ala	Val	Pro	Ile	Thr	Ala	Asn	Ser	Leu	Gly	Ser	His
		115					120					125			
Thr	Val	Thr	Gly	Gly	Thr	Ile	Thr	Thr	Asn	Ser	Pro	Glu	Thr	Ser	Ser
	130					135					140				
Arg	Thr	Ser	Gly	Ala	Pro	Val	Thr	Thr	Ala	Ala	Ser	Ser	Leu	Glu	Thr
145					150					155					160
Ser	Arg	Gly	Thr	Ser	Gly	Pro	Pro	Leu	Thr	Met	Ala	Thr	Val	Ser	Leu
					165				170					175	
Glu	Thr	Ser	Lys	Gly	Thr	Ser	Gly	Pro	Pro	Val	Thr	Met	Ala	Thr	Asp
			180					185					190		
Ser	Leu	Glu	Thr	Ser	Thr	Gly	Thr	Thr	Gly	Pro	Pro	Val	Thr	Met	Thr
		195					200					205			
Thr	Gly	Ser	Leu	Glu	Pro	Ser	Ser	Gly	Ala	Ser	Gly	Pro	Gln	Val	Ser
	210					215					220				
Ser	Val	Lys	Leu	Ser	Thr	Met	Met	Ser	Pro	Thr	Thr	Ser	Thr	Asn	Ala
225					230					235					240
Ser	Thr	Val	Pro	Phe	Arg	Asn	Pro	Asp	Glu	Asn	Ser	Arg	Gly	Met	Leu
				245					250					255	
Pro	Val	Ala	Val	Leu	Val	Ala	Leu	Leu	Ala	Val	Ile	Val	Leu	Val	Ala
			260					265					270		
Leu	Leu	Leu	Leu	Trp	Arg	Arg	Arg	Gln	Lys	Arg	Arg	Thr	Gly	Ala	Leu
		275					280					285			
Val	Leu	Ser	Arg	Gly	Gly	Lys	Arg	Asn	Gly	Val	Val	Asp	Ala	Trp	Ala
	290					295					300				
Gly	Pro	Ala	Gln	Val	Pro	Glu	Glu	Gly	Ala	Val	Thr	Val	Thr	Val	Gly
305					310					315					320
Gly	Ser	Gly	Gly	Asp	Lys	Gly	Ser	Gly	Phe	Pro	Asp	Gly	Glu	Gly	Ser
				325					330					335	
Ser	Arg	Arg	Pro	Thr	Leu	Thr	Thr	Phe	Phe	Gly	Arg	Arg	Lys	Ser	Arg
			340					345					350		
Gln	Gly	Ser	Leu	Ala	Met	Glu	Glu	Leu	Lys	Ser	Gly	Ser	Gly	Pro	Ser
		355					360					365			
Leu	Lys	Gly	Glu	Glu	Glu	Pro	Leu	Val	Ala	Ser	Glu	Asp	Gly	Ala	Val
	370					375					380				
Asp	Ala	Pro	Ala	Pro	Asp	Glu	Pro	Glu	Gly	Gly	Asp	Gly	Ala	Ala	Pro
385					390					395					400

```
<210> 11
<211> 1879
<212> DNA
<213> Homo sapiens sialophorin (CD43)
```

<400> 11
gcctcgggag gtggtggagt gacctggccc cagtgtctgcg tccttatcag ccgagccggt 60
cccagctctt gctcctgcct gtttgcctgg aaatggccac gcttctcctt ctcccttgggg 120
tgctggtggt aagcccagac gctctgggga gcacaacagc agtgcagaca cccacctccg 180
gagagccttt ggtctctact agcgagcccc tgagctcaaa gatgtacacc acttcaataa 240
caagtgaccc taaggccgac agcactgggg accagacctc agccctacct ccctcaactt 300
ccatcaatga gggatcccct ctttggactt ccattggtgc cagcactggt tcccctttac 360
ctgagccaac aacctaccag gaagtttcca tcaagatgtc atcagtgcc caggaaaccc 420
ctcatgcaac cagtcatcct gctgttccca taacagcaaa ctctctagga tcccacaccg 480
tgacagggtg aaccataaca acgaactctc cagaaacctc cagtaggacc agtggagccc 540
ctgttaccac ggcagctagc tctctggaga cctccagagg cacctctgga ccccctctta 600
ccatggcaac tgtctctctg gagacttcca aaggcacctc tggaccccct gttaccatgg 660
caactgactc tctggagacc tccactggga ccactggacc ccctgttacc atgacaactg 720
gctctctgga gccctccagc ggggccagtg gaccccaggt ctctagcgta aaactatcta 780
caatgatgtc tccaacgacc tccaccaacg caagcactgt gcccttccgg aaccagatg 840
agaactcacg aggcattgctg ccagtggctg tgcttgtggc cctgctggcg gtcatagtcc 900
tcgtggctct gctcctgctg tggcgccggc ggagaaagcg gcggaactggg gccctcgtgc 960
tgagcagagg tggcaagcgt aacgggggtg tggacgcctg ggctgggcca gccaggtcc 1020
ctgaggaggg ggccgtgaca gtgaccgtg gaggggtccg gggcgacaag ggctctgggt 1080
tccccgatgg ggaggggtct agccgtcggc ccacgctcac cactttcttt ggagacgga 1140
agtctcgcca gggctccctg gcgatggagg agctgaagtc tgggtcaggc cccagcctca 1200
aaggggagga ggagccactg gtggccagtg aggatggggc tgtggacgcc ccagctcctg 1260
atgagcccga agggggagac ggggctgccc cttaagtgtc ggtgaatagt gaggctggag 1320
gccggaatct cagccagcct ccagcacctt ccctctcacc atccactgc cccctcgtc 1380
ccatgtttcc acccggcacc ctgactctca cccgaatctc cttttttttt ttcttttgag 1440
acagagtttc gctttgtcgc ccaggctgga gtgcaatgca cgatctcagt tcaactgcaac 1500
ctctgcctcc taagttcagg cgattctcct gcctcagctt ccgagtaac tgagattaca 1560
ggcaccacc accatgcca gctgcttttt tgtatttttg gtagagatgg ggtttcacca 1620
tgttggttag gctggtctca aactcctgac ctgagtgat ctacctgct cagcctccca 1680
aagtgtgag attacagaca tgagcctccg cgccttgctt cctcaccac ctcttcactc 1740
tgaatcctca tgaggcttct cagccctgga tttcctgctg ccactctcac ccagcaccca 1800

caactagcgc ctgggcaggg cagggctggc acctctcaac gtctgtggac tgaatgaata 1860
aaccctctc atccacccc 1879

<210> 12
<211> 400
<212> PRT
<213> Homo sapiens sialophorin (CD43)

<400> 12
Met Ala Thr Leu Leu Leu Leu Gly Val Leu Val Val Ser Pro Asp
1 5 10 15
Ala Leu Gly Ser Thr Thr Ala Val Gln Thr Pro Thr Ser Gly Glu Pro
20 25 30
Leu Val Ser Thr Ser Glu Pro Leu Ser Ser Lys Met Tyr Thr Thr Ser
35 40 45
Ile Thr Ser Asp Pro Lys Ala Asp Ser Thr Gly Asp Gln Thr Ser Ala
50 55 60
Leu Pro Pro Ser Thr Ser Ile Asn Glu Gly Ser Pro Leu Trp Thr Ser
65 70 75 80
Ile Gly Ala Ser Thr Gly Ser Pro Leu Pro Glu Pro Thr Thr Tyr Gln
85 90 95
Glu Val Ser Ile Lys Met Ser Ser Val Pro Gln Glu Thr Pro His Ala
100 105 110
Thr Ser His Pro Ala Val Pro Ile Thr Ala Asn Ser Leu Gly Ser His
115 120 125
Thr Val Thr Gly Gly Thr Ile Thr Thr Asn Ser Pro Glu Thr Ser Ser
130 135 140
Arg Thr Ser Gly Ala Pro Val Thr Thr Ala Ala Ser Ser Leu Glu Thr
145 150 155 160
Ser Arg Gly Thr Ser Gly Pro Pro Leu Thr Met Ala Thr Val Ser Leu
165 170 175
Glu Thr Ser Lys Gly Thr Ser Gly Pro Pro Val Thr Met Ala Thr Asp
180 185 190
Ser Leu Glu Thr Ser Thr Gly Thr Thr Gly Pro Pro Val Thr Met Thr
195 200 205
Thr Gly Ser Leu Glu Pro Ser Ser Gly Ala Ser Gly Pro Gln Val Ser
210 215 220
Ser Val Lys Leu Ser Thr Met Met Ser Pro Thr Thr Ser Thr Asn Ala
225 230 235 240
Ser Thr Val Pro Phe Arg Asn Pro Asp Glu Asn Ser Arg Gly Met Leu
245 250 255
Pro Val Ala Val Leu Val Ala Leu Leu Ala Val Ile Val Leu Val Ala
260 265 270

Leu Leu Leu Leu Trp Arg Arg Arg Gln Lys Arg Arg Thr Gly Ala Leu
275 280 285

Val Leu Ser Arg Gly Gly Lys Arg Asn Gly Val Val Asp Ala Trp Ala
290 295 300

Gly Pro Ala Gln Val Pro Glu Glu Gly Ala Val Thr Val Thr Val Gly
305 310 315 320

Gly Ser Gly Gly Asp Lys Gly Ser Gly Phe Pro Asp Gly Glu Gly Ser
325 330 335

Ser Arg Arg Pro Thr Leu Thr Thr Phe Phe Gly Arg Arg Lys Ser Arg
340 345 350

Gln Gly Ser Leu Ala Met Glu Glu Leu Lys Ser Gly Ser Gly Pro Ser
355 360 365

Leu Lys Gly Glu Glu Glu Pro Leu Val Ala Ser Glu Asp Gly Ala Val
370 375 380

Asp Ala Pro Ala Pro Asp Glu Pro Glu Gly Gly Asp Gly Ala Ala Pro
385 390 395 400

<210> 13
<211> 6503
<212> DNA
<213> Homo sapiens sialophorin (CD43)

<400> 13
aagcttgcta attagaggaa agtcaggaaa tgggaacccat tcaaagaaga aaataccccc 60
acctcctact ctcacctatc caaagacaat taggtgaatc ccttagtaga tatctttcca 120
gacggttttc catatagatt cccatatctg gccaggcgcg gtggctcaca cctgtaatcc 180
tagcgcttg gagggtgag gcggatggac cacctgaggt caggagttcg agaccagcct 240
gaccaacatg gagaaacctc gtctctacga aaaatacaaa attagccggg cacagtgggtg 300
caagcctgta atcccagcta ctcaggaggc cgaggcagga gaattgcttg aacctaggag 360
gcagacattg tgctgagccg agccaagatc atgccattgc actaaactcc gccttaaaaa 420
aaaaaaaaaa agattccac atctttacta gtttgcagaa ataagatcct agcatatgca 480
gtgtgtagga accaccttgg tttagccacg tctctgtgac tggggggccac tgtggtgacc 540
cccagctccc cggacagagt caagagctca ccagcctgca aagggttttca cggccccag 600
ccagactcgg gggcttcctc ttgccctgct acttctggg agctctgagg gcaggaaatg 660
gcgccactca gctcctggcc taacagcttg gggaccacaa atgcaaagga aaccaccctc 720
ccctcccacc tctcctctg cacccttgag ttctcagget cacattccca ccaccacct 780
ctgagcccag cctccctag catcaccact tccatcccat tctcagcca agagccagga 840
atcctgattc cagatccac gcttcctgc ctcctcagg tgagccccag acccccaggc 900

accccgctgg	cccctgaagg	agcaggtgat	ggtgctgtct	tcgcccagca	gctgtgggag	960
caggcggttg	gggcaggatg	gaggggtggg	tggggtgggt	ggagccaggg	cccacttcct	1020
ttccccttgg	ggccctgtcc	ttcccagtct	tgccccagcc	tcgggaggtg	gtggagtgac	1080
ctggccccag	tgctgcgtcc	ttatcagccg	agccggtaag	agggtgagac	ttggtggggg	1140
aggggcctca	gtgggcctgg	gaatgtgcct	gtggcttgaa	aagactctga	caggttatga	1200
tgggaagaga	ttgggagcca	ttgggctgca	cagggtcagg	gaaggccagg	aggggctggt	1260
cactgctgga	atctaagctg	ctgaggctgg	agggagcctc	aggatggggc	tgatggggga	1320
gctgccagca	tctgttcctc	tgtcatttct	gataacagta	aaagccagca	tggaaaaaac	1380
cgtaaaccg	caggttgggc	ctggccgttg	gcagggaagt	gggcagaggg	gaggcccggc	1440
caggtcctcc	ggcaactccc	gcgtgttctg	cttctccggc	tgcccacctg	caggtcccag	1500
ctcttgctcc	tgccctgttg	cctggaaatg	gccacgcttc	tccttctcct	tggggtgctg	1560
gtggtaaagc	cagacgctct	ggggagcaca	acagcagtgc	agacaccac	ctccggagag	1620
cctttggtct	ctactagcga	gcccctgagc	tcaaagatgt	acaccacttc	aataacaagt	1680
gaccctaagg	ccgacagcac	tggggaccag	acctcagccc	tacctccctc	aattccatc	1740
aatgagggat	cccctctttg	gacttccatt	ggtgccagca	ctggttcccc	tttacctgag	1800
ccaacaacct	accaggaagt	ttccatcaag	atgtcatcag	tgccccagga	aaccctcat	1860
gcaaccagtc	atcctgctgt	tcccataaca	gcaaactctc	taggatccca	caccgtgaca	1920
ggtggaacca	taacaacgaa	ctctccagaa	acctccagta	ggaccagtgg	agcccctgtt	1980
accacggcag	ctagctctct	ggagacctcc	agaggcacct	ctggaccccc	tcttaccatg	2040
gcaactgtct	ctctggagac	ttccaaaggc	acctctggac	cccctgttac	catggcaact	2100
gactctctgg	agacctccac	tgggaccact	ggacccccctg	ttaccatgac	aactggctct	2160
ctggagccct	ccagcggggc	cagtggaccc	caggtctcta	gcgtaaaact	atctacaatg	2220
atgtctccaa	cgacctccac	caacgcaagc	actgtgcctt	tccggaaccc	agatgagaac	2280
tcacgaggca	tgctgccagt	ggctgtgctt	gtggccctgc	tggcggtcat	agtcctcgtg	2340
gctctgctcc	tgctgtggcg	ccggcggcag	aagcggcgga	ctggggccct	cgtgctgagc	2400
agaggcgga	agcgtaacgg	ggtggtggac	gcctgggctg	ggccagccca	ggtccctgag	2460
gagggggccg	tgacagtgac	cgtgggaggg	tccggggggc	acaagggctc	tgggttcccc	2520
gatggggagg	ggtctagccg	tcggcccacg	ctcaccactt	tctttggcag	acggaagtct	2580
cgccagggct	ccctggcgat	ggaggagctg	aagtctgggt	caggccccag	cctcaaaggg	2640
gaggaggagc	cactggtggc	cagtgaggat	ggggctgtgg	acgccccagc	tcctgatgag	2700
cccgaagggg	gagacggggc	tgccccttaa	gtgtcgggtg	atagtgaggc	tggaggccgg	2760

aatctcagcc agcctccagc accttccctc tcaccatccc actgccccct cgctcccatg	2820
tttccaccgg gcacctgat cctcaccgga atctcctttt tttttttctt ttgagacaga	2880
gtttcgcttt gtcgcccagg ctggagtgca atgcacgata tcagttcact gcaacctctg	2940
cctcctaagt tcaggcgatt ctctgcctc agcttcccga gtaactgaga ttacaggcac	3000
ccaccacat gccagctgc ttttttgtat ttttggtaga gatgggggtt caccatgttg	3060
gctaggctgg tctcaaactc ctgacctcag gtgatctacc tgccctcagc tcccaaagtg	3120
ctgagattac agacatgagc ctccgcgcct tgccctcctc cccacctctt cactctgaat	3180
cctcatgagg cttctcagcc ctggatttcc tgctgccatc ctcaccagc acccacaact	3240
agcgctggg cagggcaggg ctggcacctc tcaacgtctg tggactgaat gaataaaccc	3300
tcctcatcca cccctattta tctccatcac catttcccc tctttcttgt tcctggaaac	3360
ggctgctgag tctccatcgg ccaaacttat ctgccctgtg atttctttga caattctcct	3420
tttccccag aaccacacct gggttgacca gagtctggga agaaggacaa gagaaccgg	3480
caaactccct cctaggatta actttgtaaa gcacccttg cctgtagctg caagggctgt	3540
ggaacctggg cagcccgcaa ccaccttag ctctgggcc cccaggccag cctggagcat	3600
ggctgggtgg ggccaccagc catgctctc agcgggcct gtgatcttcc ccagggcaca	3660
tggactgtag gctggccctg gccacacca ccactctc cccagccatg gacagaggca	3720
gccagaggcc tcacggtttc tcctccgagt ttctggctgg gtgtagtctt cagaaacccc	3780
agtgcctgcg tgtgtccact cgtgggtgtg gtttgtgtgc aagagctgag gatttggcga	3840
tgcttgggag gggtagttgt gggtagagac ggtgtggggg tgggaagtgg tgagagact	3900
gaagaggggc aacctgggca tgggggacac agggactgct gagaacgtgc gtgtcatctt	3960
tgctctgatg gggtagcat agcagaaaat ctaactctgt ctgtagcccc atacagaatg	4020
ccagggtgag cacagtggct ggtgccttta atcccagcac tttggaaagt tgaggcagga	4080
ggatcgcttg agcccaggag ttcgagtctg aagtgagctg tgattgcacc actgcacttc	4140
agcctgggca acagagtgag cccctgtctc aaaaaagaaa agaaaaagaa agccaggctt	4200
catggaaaga tcgtatgtgt gacccaaata tgagttcttc agctcagcca tggtaatccc	4260
ttccttgaag tctccatttc tgcagtacac atgcatgtgc gctctctctc tctctctctc	4320
tctcacacac acacacacac acacacacac gcgcgcgcgc gcgcgcgcgc gcgctctcct	4380
gcgaacagag gcagggggag aggggtttgc cctggtctcg gggactggtc tggctggcgc	4440
ttccccactg caggtttcca ggtttagttt gtctgtgtct cctcttccat cccaggggct	4500
gagccccttc catcctccaa gaggaaccag tgagagtgag tgaaggagg gcctggagcc	4560
agggacttcc cctgtggggc ctgggtggag aggggagaa tcaatgggtgc tgcctttgag	4620

accagcccag	ctacagccca	ggagcacaca	tgggccaggg	cagttggtat	ttcccagga	4680
caaagaggaa	atthttcaaag	aggaagttgt	tgagttagag	cttgcggtgg	ctgagagcag	4740
acaggttgac	ctgcaaaaaa	agacagggga	ggcatgtgag	tgtgacagcc	ctgctctgtg	4800
gcctgggcag	gagatggggg	aaagggtcag	gtgggggatg	ggctcgtgca	gtgggagagg	4860
agacggaggg	agggagcggg	aaggggcttg	cttagtgggg	gggaagagct	gagctcggat	4920
ggaaccagct	tctaccagcc	aggctgggca	cccactgggc	tgcattctgg	ggccttttct	4980
gattgctatt	tggactcact	gcagctgcag	aatgacagag	gccatgtcca	aaatccctta	5040
gagacactgt	tgtcttagag	ttgttaaaat	aagagcccc	atatcaggtt	tagaaaatac	5100
tgtcaccgaa	cgaacgtcgc	tgtcctcagc	tccacctccc	tttcctttga	cagatatggg	5160
tgtttttctaa	gccaggactg	gttttagtca	ggctcctggc	gaatcctgaa	aaaaagaggt	5220
agtaggggta	aggaaggcac	ccaacagggc	ttcacaaatc	cagaaaatat	caaaatataa	5280
gtgttaaaaag	agaggcacag	gccgggtgcg	gtggctcacg	cctgtaattct	cagcactttg	5340
ggaggccaag	gtgggcagat	catgagggtca	ggagtttgag	accagcctgg	ccaatatgat	5400
gaaaccccg	ttctactaaa	aatacaaaaag	ttagccaggc	atgggtggtgt	gctcctgtaa	5460
tcccagctac	ttaggagggt	gaggccagag	aattgcttga	accctggagt	cagagggtgc	5520
agttagcccg	gatcatgcca	ctgtactcca	ggctgggtga	caaagtgaga	ctgtctcaaa	5580
aaataaaaaat	aaataaaaata	aataaaaagag	aggcacaaac	agtgttatga	atgcaccaag	5640
gaaaatggtg	cattcataac	tctcagggtga	agcctaccaa	gccatgcgtg	tgtgcacata	5700
tgtgtgtacg	tgtgcatgtg	cgtgcgtgca	tgtgcgtgcg	tgcattgtgc	tgtgtgtgta	5760
tgtgtgcaca	tgtgtgtgcg	catgtgtgtg	tgtgcgcgca	tgtgtgtgtg	catgcatgtt	5820
ctcccatgca	tgtgtactgt	ggcaaggag	actttgagga	agagattcca	gtggctgagc	5880
agaagggtc	gcattgccct	ggcgaaagg	tgaaggctt	cacctgagag	tgtgtcgtgg	5940
cctttgtcat	atccactgct	tgattccttt	ctttaaaaat	tatttttatt	gttttctaca	6000
tatgagaacc	accacacctg	gctaattttt	gtattttttg	tagagatggg	gtttcaccat	6060
gttgtcccgg	ctgggtctcaa	actcccgggc	acaagagatc	cacctgcctc	agcctcccaa	6120
aatgctggga	ctataggcat	gagccactgc	accagccac	tgcttcattc	ctggtggctg	6180
ctgtgcctgg	catgtttgcag	atcctccatg	aatatgcatt	tgaatgaatg	aatgaatgaa	6240
tgaatgaatg	gagatgacgc	ctcagagatt	ctttcttttg	agatgaggtc	tcattctgtc	6300
accagacta	gagggcagtg	gtgcaatcac	agctcaccac	agcctcaacc	tcctgggcct	6360
cccaagtagc	tgcgatcaca	ggtgtgcacc	aacatgcccc	gctaattttt	tttttaattt	6420
ttaatttgta	cagacagggt	cttgctgtgt	tgcccaggct	ggtctcgaac	tcctgggcct	6480

aagtggctcct cccacctaag ctt

6503

<210> 14
<211> 400
<212> PRT
<213> Homo sapiens sialophorin (CD43)

<400> 14
Met Ala Thr Leu Leu Leu Leu Gly Val Leu Val Val Ser Pro Asp
1 5 10 15
Ala Leu Gly Ser Thr Thr Ala Val Gln Thr Pro Thr Ser Gly Glu Pro
20 25 30
Leu Val Ser Thr Ser Glu Pro Leu Ser Ser Lys Met Tyr Thr Thr Ser
35 40 45
Ile Thr Ser Asp Pro Lys Ala Asp Ser Thr Gly Asp Gln Thr Ser Ala
50 55 60
Leu Pro Pro Ser Thr Ser Ile Asn Glu Gly Ser Pro Leu Trp Thr Ser
65 70 75 80
Ile Gly Ala Ser Thr Gly Ser Pro Leu Pro Glu Pro Thr Thr Tyr Gln
85 90 95
Glu Val Ser Ile Lys Met Ser Ser Val Pro Gln Glu Thr Pro His Ala
100 105 110
Thr Ser His Pro Ala Val Pro Ile Thr Ala Asn Ser Leu Gly Ser His
115 120 125
Thr Val Thr Gly Gly Thr Ile Thr Thr Asn Ser Pro Glu Thr Ser Ser
130 135 140
Arg Thr Ser Gly Ala Pro Val Thr Thr Ala Ala Ser Ser Leu Glu Thr
145 150 155 160
Ser Arg Gly Thr Ser Gly Pro Pro Leu Thr Met Ala Thr Val Ser Leu
165 170 175
Glu Thr Ser Lys Gly Thr Ser Gly Pro Pro Val Thr Met Ala Thr Asp
180 185 190
Ser Leu Glu Thr Ser Thr Gly Thr Thr Gly Pro Pro Val Thr Met Thr
195 200 205
Thr Gly Ser Leu Glu Pro Ser Ser Gly Ala Ser Gly Pro Gln Val Ser
210 215 220
Ser Val Lys Leu Ser Thr Met Met Ser Pro Thr Thr Ser Thr Asn Ala
225 230 235 240
Ser Thr Val Pro Phe Arg Asn Pro Asp Glu Asn Ser Arg Gly Met Leu
245 250 255
Pro Val Ala Val Leu Val Ala Leu Leu Ala Val Ile Val Leu Val Ala
260 265 270

Leu Leu Leu Leu Trp Arg Arg Arg Gln Lys Arg Arg Thr Gly Ala Leu
275 280 285

Val Leu Ser Arg Gly Gly Lys Arg Asn Gly Val Val Asp Ala Trp Ala
290 295 300

Gly Pro Ala Gln Val Pro Glu Glu Gly Ala Val Thr Val Thr Val Gly
305 310 315 320

Gly Ser Gly Gly Asp Lys Gly Ser Gly Phe Pro Asp Gly Glu Gly Ser
325 330 335

Ser Arg Arg Pro Thr Leu Thr Thr Phe Phe Gly Arg Arg Lys Ser Arg
340 345 350

Gln Gly Ser Leu Ala Met Glu Glu Leu Lys Ser Gly Ser Gly Pro Ser
355 360 365

Leu Lys Gly Glu Glu Glu Pro Leu Val Ala Ser Glu Asp Gly Ala Val
370 375 380

Asp Ala Pro Ala Pro Asp Glu Pro Glu Gly Gly Asp Gly Ala Ala Pro
385 390 395 400

<210> 15
<211> 2745
<212> DNA
<213> Homo sapiens heterogeneous nuclear ribonucleoprotein K

<400> 15
cggcagtc tgcgcggctac tgcagcactg ggggtgtcagt tgttggtccg acccagaacg 60
cttcagttct gctctgcaag gatataaat aactgattgg tgtgcccgtt taataaaaga 120
atatggaaac tgaacagcca gaagaaacct tccctaacac tgaaaccaat ggtgaatttg 180
gtaaacgccc tgcagaagat atggaagagg aacaagcatt taaaagatct agaaacactg 240
atgagatggg tgaattacgc attctgcttc agagcaagaa tgctggggca gtgattggaa 300
aaggaggcaa gaatattaag gctctccgta cagactacaa tgccagtgtt tcagtcccag 360
acagcagtgg ccccgagcgc atattgagta tcagtgtctga tattgaaaca attggagaaa 420
ttctgaagaa aatcatccct accttggaag agggcctgca gttgccatca cccactgcaa 480
ccagccagct cccgctcgaa tctgatgctg tggaatgctt aaattaccaa cactataaag 540
gaagtgactt tgactgagag ttgaggctgt tgattcatca gagtctagca ggaggaatta 600
ttgggggtcaa aggtgctaaa atcaaagaac ttcgagagaa cactcaaacc accatcaagc 660
ttttccagga atgctgtcct cattccactg acagagttgt tcttattgga ggaaaacccg 720
ataggggtgt agagtgcata aagatcatcc ttgatcttat atctgagtct cccatcaaag 780
gacgtgcaca gccttatgat cccaattttt acgatgaaac ctatgattat ggtggtttta 840
caatgatgtt tgatgaccgt cgcggacgcc cagtgggatt tcccatgcgg ggaagaggtg 900

gttttgacag aatgcctcct ggtcggggtg ggcgtcccat gcctccatct agaagagatt	960
atgatgatat gagccctcgt cgaggaccac ctccccctcc tcccggacga ggcggccggg	1020
gtggtagcag agctcggaat cttcctcttc ctccaccacc accacctaga gggggagacc	1080
tcatggccta tgacagaaga gggagacctg gagaccgtta cgacggcatg gttggtttca	1140
gtgctgatga aacttgggac tctgcaatag atacatggag cccatcagaa tggcagatgg	1200
cttatgaacc acaggggtggc tccggatatg attattccta tgcaggggggt cgtggctcat	1260
atggtgatct tgggtggacct attattacta cacaagtaac tattcccaa gatttggctg	1320
gatctattat tggcaaagggt ggtcagcgga ttaaaccaat ccgtcatgag tccggagctt	1380
cgatcaaaat tgatgagcct ttagaaggat ccgaagatcg gatcattacc attacaggaa	1440
cacaggacca gatacagaat gcacagtatt tgctgcagaa cagtgtgaag cagtatgcag	1500
atgttgaagg attctaatagc aagatatttt ttctttttta tagtgtgaag cagtattctg	1560
gaaagttttt ctaagactag tgaagaactg aaggagtcc tgcatttttt ttttttatct	1620
gcttctgttt aaaaagccaa cattcctctg cttcataggt gttctgcatt tgagggtgtag	1680
tgaaatcttt gctgttcacc agatgtaatg ttttagttcc ttacaaacag ggttgggggg	1740
gggaagggcg tgcaaaaact aacattgaaa ttttgaaaca gcagcagagt gagtggattt	1800
tatttttcgt tattgttgggt ggtttaaaaa attcccccca tgtaattatt gtgaacacct	1860
tgctttgtgg tcaactgtaac atttgggggg tgggacaggg aggaaaagta acaatagtcc	1920
acatgtccct ggcatctgtt cagagcagtg tgcagaatgt aatgctcttt tgtaagaaac	1980
gttttatgat ttttaaaata aatttagtga acctattttt ggtgggtcatt ttttttttaa	2040
gacagtcatt ttaaaatgggt ggctgaattt cccaaccac cccaaaacta aacactaagt	2100
ttaattttca gctcctctgt tggacatata agtgcattct ttgttggaca taggcaaaat	2160
aacttggcaa acttagttct ggtgatttct tgatggtttg gaagtctatt gctgggaaga	2220
aattccatca tacatattca tgcttataat aagctgggga ttttttgttt gtttttgcaa	2280
atgcttggcc ctacttttca acaattttct atgttagttg tgaagaacta aggtggggag	2340
cagtactaca agttgagtaa tggatatgag atataccaga attctgattg gcagcaagtt	2400
tattaatcag aataacactt gggtatggaa gtgactaatg ctgaaaaaat tgattatttt	2460
tattagataa tttctcacct atagacttaa actgtcaatt tgccttagtg tcttattagt	2520
taaactttgt aaaatatata tatacttggt tttccattgt atgcaaattg aaagaaaaag	2580
atgtaccatt tctctgttgt atgttggatt atgtaggaat gtttgtgtac aattcaaaaa	2640
aaaaaaagat gaaaaaagtt cctgtggatg ttttgtgtag tatcttggca tttgtattga	2700
tagttaaaat tcaattccaa ataaataaaa cacccatgat gctag	2745

<210> 16
 <211> 463
 <212> PRT
 <213> Homo sapiens heterogeneous nuclear ribonucleoprotein complex K

<400> 16
 Met Glu Thr Glu Gln Pro Glu Glu Thr Phe Pro Asn Thr Glu Thr Asn
 1 5 10 15
 Gly Glu Phe Gly Lys Arg Pro Ala Glu Asp Met Glu Glu Glu Gln Ala
 20 25 30
 Phe Lys Arg Ser Arg Asn Thr Asp Glu Met Val Glu Leu Arg Ile Leu
 35 40 45
 Leu Gln Ser Lys Asn Ala Gly Ala Val Ile Gly Lys Gly Gly Lys Asn
 50 55 60
 Ile Lys Ala Leu Arg Thr Asp Tyr Asn Ala Ser Val Ser Val Pro Asp
 65 70 75 80
 Ser Ser Gly Pro Glu Arg Ile Leu Ser Ile Ser Ala Asp Ile Glu Thr
 85 90 95
 Ile Gly Glu Ile Leu Lys Lys Ile Ile Pro Thr Leu Glu Glu Gly Leu
 100 105 110
 Gln Leu Pro Ser Pro Thr Ala Thr Ser Gln Leu Pro Leu Glu Ser Asp
 115 120 125
 Ala Val Glu Cys Leu Asn Tyr Gln His Tyr Lys Gly Ser Asp Phe Asp
 130 135 140
 Cys Glu Leu Arg Leu Leu Ile His Gln Ser Leu Ala Gly Gly Ile Ile
 145 150 155 160
 Gly Val Lys Gly Ala Lys Ile Lys Glu Leu Arg Glu Asn Thr Gln Thr
 165 170 175
 Thr Ile Lys Leu Phe Gln Glu Cys Cys Pro His Ser Thr Asp Arg Val
 180 185 190
 Val Leu Ile Gly Gly Lys Pro Asp Arg Val Val Glu Cys Ile Lys Ile
 195 200 205
 Ile Leu Asp Leu Ile Ser Glu Ser Pro Ile Lys Gly Arg Ala Gln Pro
 210 215 220
 Tyr Asp Pro Asn Phe Tyr Asp Glu Thr Tyr Asp Tyr Gly Gly Phe Thr
 225 230 235 240
 Met Met Phe Asp Asp Arg Arg Gly Arg Pro Val Gly Phe Pro Met Arg
 245 250 255
 Gly Arg Gly Gly Phe Asp Arg Met Pro Pro Gly Arg Gly Gly Arg Pro
 260 265 270
 Met Pro Pro Ser Arg Arg Asp Tyr Asp Asp Met Ser Pro Arg Arg Gly
 275 280 285

Pro Pro Pro Pro Pro Pro Gly Arg Gly Gly Arg Gly Gly Ser Arg Ala
 290 295 300

Arg Asn Leu Pro Leu Pro Pro Pro Pro Pro Arg Gly Gly Asp Leu
 305 310 315 320

Met Ala Tyr Asp Arg Arg Gly Arg Pro Gly Asp Arg Tyr Asp Gly Met
 325 330 335

Val Gly Phe Ser Ala Asp Glu Thr Trp Asp Ser Ala Ile Asp Thr Trp
 340 345 350

Ser Pro Ser Glu Trp Gln Met Ala Tyr Glu Pro Gln Gly Gly Ser Gly
 355 360 365

Tyr Asp Tyr Ser Tyr Ala Gly Gly Arg Gly Ser Tyr Gly Asp Leu Gly
 370 375 380

Gly Pro Ile Ile Thr Thr Gln Val Thr Ile Pro Lys Asp Leu Ala Gly
 385 390 395 400

Ser Ile Ile Gly Lys Gly Gly Gln Arg Ile Lys Gln Ile Arg His Glu
 405 410 415

Ser Gly Ala Ser Ile Lys Ile Asp Glu Pro Leu Glu Gly Ser Glu Asp
 420 425 430

Arg Ile Ile Thr Ile Thr Gly Thr Gln Asp Gln Ile Gln Asn Ala Gln
 435 440 445

Tyr Leu Leu Gln Asn Ser Val Lys Gln Tyr Ser Gly Lys Phe Phe
 450 455 460

<210> 17
 <211> 1144
 <212> DNA
 <213> Homo sapiens Pur (pur-alpha)

<400> 17
 cgactgaggc ggcgggaggc ggcgcaggcg gcggcggcgc ggcagcggag cgcagcatca 60
 tggcggaccg agacagcggc agcagcagg gtggtgcggc gctgggttcg ggcggctccc 120
 tggggcaccc cggctcgggc tcaggctccg gcgggggcgg tggcggcggc gggggcggcg 180
 gcggcagtgg cggcggcggc ggcggggccc caggggggct gcagcacgag acgcaggagc 240
 tggcctccaa gcgggtggac atccagaaca agcgcttcta cctggacgtg aagcagaacg 300
 ccaaggggcg ctctctgaag atcgccgagg tgggcgcggg cggcaacaag agccgcctta 360
 ctctctccat gtcagtggcc gtggagttcc gcgactacct gggcgacttc atcgagcact 420
 acgcgcagct gggccccagc cagccgccgg acctggccca ggcgcaggac gagccgcgcc 480
 gggcgctcaa aagcgagttc ctggtgcggc agaaccgcaa gtactacatg gatctcaagg 540
 agaaccagcg cggccgcttc ctgcgcatcc gccagacggt caaccggggg cctggcctgg 600
 gctccacgca gggccagacc attgcgctgc ccgcgcaggg gctcatcgag ttccgtgacg 660

```

ctctggccaa gctcatcgac gactacggag tggaggagga gccggccgag ctgcccgagg      720
gcacctcctt gactgtggac aacaagcgct tcttcttoga tgtggggtcc aacaagtacg      780
gcgtgtttat gcgagtgagc gaggtgaagc ccacctatcg caactccatc accgtgccct      840
acaaggtgtg ggccaagttc ggacacacct tctgcaagta ctcgaggag atgaagaaga      900
ttcaagagaa gcagagggag aagcgggctg cctgtgagca gcttcaccag cagcaacagc      960
agcagcagga ggagaccgcc gctgccactc tgctactgca gggtgaggaa gaaggggaag    1020
aagattgatc aaacagaatg aaacccccac acacacacac atgcatacac acacacacac    1080
agccacacac acagaaaata tactgtaaag aaagagagaa aataaaaagt taaaaagtta    1140
aaaa                                                                1144

```

```

<210> 18
<211> 322
<212> PRT
<213> Homo sapiens purine-rich element binding protein A (PURA)

```

```

<400> 18
Met Ala Asp Arg Asp Ser Gly Ser Glu Gln Gly Gly Ala Ala Leu Gly
1          5          10          15

Ser Gly Gly Ser Leu Gly His Pro Gly Ser Gly Ser Gly Ser Gly Gly
20          25          30

Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly
35          40          45

Gly Ala Pro Gly Gly Leu Gln His Glu Thr Gln Glu Leu Ala Ser Lys
50          55          60

Arg Val Asp Ile Gln Asn Lys Arg Phe Tyr Leu Asp Val Lys Gln Asn
65          70          75          80

Ala Lys Gly Arg Phe Leu Lys Ile Ala Glu Val Gly Ala Gly Gly Asn
85          90          95

Lys Ser Arg Leu Thr Leu Ser Met Ser Val Ala Val Glu Phe Arg Asp
100         105         110

Tyr Leu Gly Asp Phe Ile Glu His Tyr Ala Gln Leu Gly Pro Ser Gln
115         120         125

Pro Pro Asp Leu Ala Gln Ala Gln Asp Glu Pro Arg Arg Ala Leu Lys
130         135         140

Ser Glu Phe Leu Val Arg Glu Asn Arg Lys Tyr Tyr Met Asp Leu Lys
145         150         155         160

Glu Asn Gln Arg Gly Arg Phe Leu Arg Ile Arg Gln Thr Val Asn Arg
165         170         175

Gly Pro Gly Leu Gly Ser Thr Gln Gly Gln Thr Ile Ala Leu Pro Ala
180         185         190

```

Gln Gly Leu Ile Glu Phe Arg Asp Ala Leu Ala Lys Leu Ile Asp Asp
195 200 205

Tyr Gly Val Glu Glu Glu Pro Ala Glu Leu Pro Glu Gly Thr Ser Leu
210 215 220

Thr Val Asp Asn Lys Arg Phe Phe Phe Asp Val Gly Ser Asn Lys Tyr
225 230 235 240

Gly Val Phe Met Arg Val Ser Glu Val Lys Pro Thr Tyr Arg Asn Ser
245 250 255

Ile Thr Val Pro Tyr Lys Val Trp Ala Lys Phe Gly His Thr Phe Cys
260 265 270

Lys Tyr Ser Glu Glu Met Lys Lys Ile Gln Glu Lys Gln Arg Glu Lys
275 280 285

Arg Ala Ala Cys Glu Gln Leu His Gln Gln Gln Gln Gln Gln Glu
290 295 300

Glu Thr Ala Ala Ala Thr Leu Leu Leu Gln Gly Glu Glu Glu Gly Glu
305 310 315 320

Glu Asp

<210> 19
<211> 22
<212> DNA
<213> Synthetic oligonucleotide (CD43 PyRo SS)

<400> 19
gggccacctt cctttccct tg

22

<210> 20
<211> 16
<212> DNA
<213> Synthetic oligonucleotide (CD43 PyRo SSUB)

<220>
<221> misc_feature
<222> (9)..(10)
<223> bromouracil

<220>
<221> misc_feature
<222> (13)..(15)
<223> bromouracil

<220>
<221> misc_feature
<222> (20)..(21)
<223> bromouracil

<220>
<221> misc_feature
<222> (23)..(23)
<223> biotin

<400> 20	
gggcccaccc ccccg	16
<210> 21	
<211> 22	
<212> DNA	
<213> Synthetic oligonucleotide (CD43 Mut-11)	
<400> 21	
gggcccactt ccttcata tg	22
<210> 22	
<211> 20	
<212> DNA	
<213> Synthetic oligonucleotide (NS-SS)	
<400> 22	
gagttagctc actcattagg	20
<210> 23	
<211> 21	
<212> DNA	
<213> Synthetic oligonucleotide(LUC-2)	
<400> 23	
atagccttat gcagttgctc t	21
<210> 24	
<211> 39	
<212> DNA	
<213> Synthetic oligonucleotide (GeneRacer RNA Oligo)	
<220>	
<221> misc_feature	
<222> (5)..(5)	
<223> bromouracil	
<220>	
<221> misc_feature	
<222> (21)..(21)	
<223> bromouracil	
<220>	
<221> misc_feature	
<222> (26)..(26)	
<223> bromouracil	
<220>	
<221> misc_feature	
<222> (31)..(31)	
<223> bromouracil	
<220>	
<221> misc_feature	
<222> (39)..(39)	
<223> bromouracil	

<400> 24
cgacggagca cgaggacacg acaggacgaa ggagagaaa 39

<210> 25
<211> 54
<212> DNA
<213> Synthetic oligonucleotide (GeneRacer Oligo dT Primer)

<400> 25
gctgtcaacg atacgctacg taacggcatg acagtgtttt tttttttttt tttt 54

<210> 26
<211> 23
<212> DNA
<213> Synthetic oligonucleotide (GeneRacer 5' Primer)

<400> 26
cgactggagc acgaggacac tga 23

<210> 27
<211> 27
<212> DNA
<213> Synthetic oligonucleotide (GeneRacer 5' Nested Primer)

<400> 27
ggacactgac catggactga aggagta 27

<210> 28
<211> 33
<212> DNA
<213> Synthetic oligonucleotide (LUC-4)

<400> 28
cactacggta ggctgcgaaa tgttcatact gtt 33